





11 Publication number:

0 401 705 A3

(2)

EUROPEAN PATENT APPLICATION

- 21) Application number: 90110475.2
- ② Date of filing: 01.06.90

(s) Int. Cl.⁵: **A61K** 31/66, A61K 31/365, A61K 31/235, A61K 31/35, A61K 31/415, A61K 31/015, A61K 37/22, A61K 31/00

- © Priority: 05.06.89 US 361520
- ② Date of publication of application: 12.12.90 Bulletin 90/50
- Designated Contracting States:
 AT BE CH DE DK ES FR GB GR IT LI LU NL SE
- © Date of deferred publication of the search report: 07.01.93 Bulletin 93/01
- Applicant: E.R. Squibb & Sons, Inc. Lawrenceville-Princeton Road Princeton, N.J. 08540-4000(US)
- Inventor: Eisman, Martin 10 West Shore Drive Pennington N.J.(US)
- Representative: Vossius & Partner Slebertstrasse 4 P.O. Box 86 07 67 W-8000 München 86(DE)
- Use of an HMG CoA reductase inhibitor and/or a squalene synthetase inhibitor for treating peripheral atherosclerotic disease.
- ② A use of a pharmaceutical composition is provided for treating peripheral atherosclerotic disease (arteriosclerosis obliterans) and/or intermittent claudication containing an HMG CoA reductase inhibitor alone and/or inhibitor of the enzyme squalene synthetase and optionally a pharmaceutical which reduces serum cholesterol by a mechanism other than inhibiting production of the enzyme HMG CoA reductase or the enzyme squalene synthetase, for example, probucol or gemfibrozil.



PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention shall be considered, for the purposes of subsequent proceedings, as the European search report

EP 90 11 0475

Category	Citation of document with in		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	PHARMACOLOGICAL RESE COMMUNICATIONS, vol.	EARCH 13, no. 10, 1981, italian iety; D. KRITCHEVSKY of mevinolin on	1-3,7-	A 61 K 31/66 A 61 K 31/365 A 61 K 31/235 A 61 K 31/35 A 61 K 31/415 A 61 K 31/015 A 61 K 37/22 A 61 K 31/00
Y	DIALOG INFORMATION SMEDLINE, abstract no DUDAEV et al.: "Efforting of the lower state of the lower KARDIOLOGIIA JUNE 15	o. 84268739; V.A. ect of probucol on i the clinical neart disease and literans of the r extremities", &	1-3,7-	
				TECHNICAL FIELDS SEARCHED (Int. Cl.5)
				A 61 K
	OMPLETE SEARCH	European patent application does not on	omely with	
the provious a me Claims s Claims s Claims s Reason	rich Division considers that he present is issues of the European Patent Convent caningful search into the state of the augusted completely: 1-12 and searched: 1-12 for the limitation of the search: Sheet -C-	ble to carry		
	Res describ	Date of completion of the search	ih l	Expension
TH	Place of search IE HAGUE	29-09-1992		RLI P.F.M.
Y:p	CATEGORY OF CITED DOCUME articularly relevant if taken alone articularly relevant if combined with an ocument of the same category	E : earlier pate after the fi	cited in the applicati cited for other reason	blished on, or on s
1 A: to	echnological background on-written disclosure			ily, corresponding



CLAIMS INCURRING FEES							
1							
The present	The present European patent application comprised at the time of filing more than ten claims.						
	All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.						
	Only part of the claims fees have been paid within the prescribed time limit. The present European search	١					
	report has been drawn up for the first ten claims and for those claims for which claims fees have been paid,						
	namely claims:	١					
	No claims fees have been paid within the prescribed time limit. The present European search report has been						
	drawn up for the first ten claims.						
	CK OF UNITY OF INVENTION	1					
l 1	Division considers that the present European patent application does not estimptly with the requirement of unity of	1					
	d relates to several inventions or groups of inventions.						
namely:							
[
see	sheet -B-						
		Ì					
		į					
		ļ					
		į					
	·						
X	All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.						
	Only part of the further search fees have been paid within the fixed time limit. The present European search						
	report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid,						
	namely claims:						
	None of the further search fees has been paid within the fixed time limit. The present European search report						
	has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.						
	namety claims:						



PARTIAL EUROPEAN SEARCH REPORT Application Number

EP 90 11 0475

	DOCUMENTS CONSIDERED TO BE RELEVAN	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)	
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	REVISTA CLINICA ESPANOLA, vol. 140, no. 4, 1976, pages 371-376; M. LASSO et al.: "Terapéutica hipolipemiante a largo plazo en la aterosclerosis obliterante". * Page 372, left-hand column, lines 48-55; page 374, left-hand column, lines 10-14 *	1-3,7-	
A	BIOCHIMICA ET BIOPHYSICA ACTA, vol. 960, 1988, pages 294-302, Elsevier Science Publishers B.V. (Biomedical Division); Y. WATANABE et al.: "Preventive effect of pravastatin sodium, a potent inhibitor of 3-hydroxy-3-methylglutaryl coenzyme A reductase, on coronary atherosclerosis and xanthoma in WHHL rabbits" * Page 301 *	1-3,7-	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A	US-A-4 654 363 (PRUGH) * Column 1, line 31 - column 2, line 7	1-3,7-	
A	NATIONAL MEETING OF THE AMERICAN FEDERATION FOR CLINICAL RESEARCH, Washington, DC, 28th April - 1st May 1989, vol. 37, no. 2, page 261A; J. GELLMAN et al.: "Lovastatin, a HO5C COA reductase inhibitor, reduces restanosis following balloon angioplasty in an atherosclerotic hypercholesterolemic rabbit"	1-3,7-	
Y,D	US-A-4 759 923 (BUNTIN) * Column 5, lines 49-64 *	1-3,7-	
Y,P	EP-A-0 356 866 (SQUIBB) * Page 1; claims */-	1-12	



European Patent Office

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1-3,7-12 partially:

Use of an inhibitor of the enzyme HMG CoA reductase (or a mixture with squalene synthetase inhibitor) (or its combination according to claims 7-10) for the preparation of a medicament for treating arteriosclerosis obliterans and/or intermittent claudication

2. Claims 1-3,7-12 partially; 4-6:

Use of an inhibitor of the enzyme squalene synthetase (or its combination according to claims 7-10) for the preparation of a medicament for treating arteriosclerosis obliterans and/or intermittent claudication



EP 90 11 0475

-C-

OBSCURITIES

The terms:

- 1 inhibitor of HMCoA reductase/squalene synthetase, [claim 1]
- 2 a pharmaceutical which reduces cholesterol
 (...) by a mechanism other than inhibiting the
 production of (...) [claim 7]
 - 3 a pyrazole analog, an indene analog, a 3-carboxy (...) derivative, a 6- (...) pyran-2-one, an imidazole analog, a heterocyclic analog, a naphthyl analog, an octahydro-naphthalene, a keto analog, a 2,3-di-substituted pyrrole, furan of thiophene, [claim 2]

are obscure for the following reasons and are only partially searchable:

- 1,2 a compounds cannot be (fully) identified by merely mentioning its activity; chemical parameters are necessary to define the limits of the claim's scope.
- 3 they provide open-ended definitions, whose understanding is based on subjective interpretation.

Moreover:

The subject matter of claims 1-12 is not supported by pharmacological evidence. As a result, this subject matter is speculative (EPC Articles 52(2)(a), 83 and 84). In the absence of pharmacological data, the evaluation of the technical nature of the subject matter and the comparison with the prior art are equivocal and subjective. As a consequence, it may well be that relevant prior art is not comprised in the search report.